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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,171	12/03/2003	Michael Gilfix	AUS920030604US1	6775

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EXAMINER

SCHLIE, PAUL W

ART UNIT	PAPER NUMBER
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2186

DATE MAILED: 04/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/728,171	Applicant(s) GILFIX ET AL.	
	Examiner Paul W. Schlie	Art Unit 2186	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-39 have been examined.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-39 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. As elements critical or essential to the practice of the invention are not included in the claims nor enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

More specifically, as a strong hash/checksum (as taught) is not sufficient to determine equivalence between an arbitrary input data region and one which may have been previously stored (as acknowledged by the applicant on page 15 lines 23 of the disclosure, that a strong checksum may only determine equivalence "to a high degree of probability", thereby not unique although seemingly presumed to be), and presuming the intent of the claimed invention is to reliably compress and retrieve or detect the potential loss of previously stored semi-persistent data (as otherwise the claimed invention would arguably lack utility); the disclosure is considered lacking critical elements necessary to enable one of ordinary skill in the art at the time of the disclosed invention without undue experimentation to enable the reliable determination of equivalence between an input region of memory and a given key, and a previously stored semi-persistent region of memory (and it's subsequent reliable access), upon

which the claimed invention relies. Corrective action is required, however the applicant is reminded that no new matter may be added which is not supported by the original disclosure.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ranganathan et al. (5,179,378) in further in view of Kurosawa et al. (5,504,895).

As per independent claims 1, 14 and 27, Ranganathan et al. teaches a method and/or system which may compress a sequence of arbitrary data by returning a key or sequence of keys representing previously or newly stored data regions, where regions will be searched at a repeating memory interval of an arbitrarily sized symbol, which are collectively equivalent to the said arbitrary data sequence, and which may be utilized to subsequently access said data equivalent; essentially based on the generic Lempel-Ziv class of lossless compression algorithms ultimately relying on literal comparison to initially determine equivalence (see abstract, column 6 lines 33-68, and figure 4), and correspondingly well understood by those of ordinary skill in the art at the time of the claimed invention that such a comparison may be preceded by a comparison of their respective checksum hash values, and/or be utilized to verify the integrity of previously stored data sequences, if deemed advantageous to do so; but does not teach that the

resulting compressed data may be stored semi-persistently. However, Kurosawa et al. teaches that arbitrary data, which may compose or comprise arbitrary data structures utilized within database and thereby file-system implementations, may be stored semi-persistently (i.e. vaporizable), where upon its reference its validity may be correspondingly determined (see column 1 lines 8-35, column 2 lines 44-49, and figures 7-9); thereby it is considered obvious to one of ordinary skill at the time of the claimed invention to combine that taught by Ranganathan et al. with that taught by Kurosawa et al. applicable to the claims, to enable arbitrary data, which may compose or comprise arbitrary data structures utilized within database and thereby file-system implementations, to be compressed semi-persistently such that a sequence of keys representing the said data's semi-persistent compressed equivalent may subsequently reliably utilized to access said semi-persistent equivalent data if remaining valid (or indicating it's otherwise necessary reconstruction if required), for the benefit of enabling the compression of semi-persistent storage as may be desired to optimize the utilization of available semi-persistent storage as may be obviously composed of otherwise unutilized storage.

As per claims 2-13, 15-26 and 28--39, being dependent on claim 1, 14, 27 or correspondingly dependent claim; claims (5-13) are considered to merely detail features considered inherent in that taught by Ranganathan et al. in view of Kurosawa et al. as detailed above or in obvious combination with features considered clearly inherent of databases and/or file system implementations in general; the limitation cited within claim (2, 15, 28) that the file system's free block size be at least as large as the maximum

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memory block size is not given patentable weight, as the size of the memory blocks as disclosed are not considered functionally significant to the claimed invention, as a stored memory region may be as small as the smallest matching element or as large as desired; the limitation cited within claims (3-4, 16-17 and 29-30) that memory (a free file system block) utilized to store semi-persistent data need not necessarily be prevented from (or specially handled upon) being allocated for other purposes is not given patentable weight, as the limitation is not operatively enabled by the disclosure, as cited in the U.S.C. 35 112 first paragraph rejection; and as claims (18-26 and 31-39) correspond to claims (5-13) in different form, they are correspondingly rejected based upon the same arguments as presented above.

Double Patenting

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 1-20 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over copending claims of Applications 10/728,168, 10/728,169 and 10/728,170. Although conflicting claims are not identical, they are not patentably distinct from each other because all claims are considered to represent a disclosed data compression technique applied in obvious combination to compress semi-persistent, database and/or file data.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.


Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul W. Schlie whose telephone number is 571-272-6765, or whose email address is [paul.schlie@uspto.gov]. The examiner can normally be reached on Mon-Thu 8:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Kim can be reached on 517-272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


PIERRE BATAILLE
PRIMARY EXAMINER
4/2/06